

## PROJECT DESCRIPTION

## I. GENERAL:

THE PROJECT INVOLVES THE CONSTRUCTION OF THE NEW TRAFFIC CONTROL SIGNAL AT US 1 (BELAIR RD) AND HONEYGO BLVD. EXTENDED/ GUNVIEW DRIVE IN PERRY HALL, BALTIMORE COUNTY. HONEYGO EXTENDED IS A BALTIMORE COUNTY HIGHWAY PROJECT. GUNVIEW DRIVE IS A DEVELOPER PROJECT. THIS PROJECT ALSO INCLUDES THE REMOVAL OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF US 1 AND FORGE ROAD.

US 1 IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

## II. INTERSECTION OPERATION:

THE INTERSECTION SHALL OPERATE IN A NEMA SIX-PHASE, FULL-ACTUATED MODE. US 1 THROUGH MOVEMENTS OPERATE CONCURRENTLY. A DOUBLE EXCLUSIVE LEFT TURN PHASE FOR SOUTHBOUND US1 OPERATES WITH AN EXCLUSIVE NORTHBOUND LEFT TURN AND A RIGHT TURN OVERLAP FROM THE EAST. THE SIDE STREETS OPERATE AS A SPLIT PHASE. ACCESSIBLE PUSHBUTTON SYSTEM (APS) AND COUNTDOWN PEDESTRIAN SIGNAL HEADS ARE PROVIDED TO CROSS THE SOUTH AND EAST LEGS OF THE INTERSECTION.

VIDEO CAMERAS AND NON-INVASIVE PROBES SHALL PROVIDE THE DETECTION.

## III. APS WILL FUNCTION AS FOLLOWS:

WHEN A PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR EXTENDED TIME, THE MESSAGE WILL BE:

BELAIR ROAD  
WAIT: "WAIT TO CROSS BELAIR ROAD AT HONEYGO"  
WALK: "RAPID TICKS" AND "WALK SIGN ON TO CROSS BELAIR ROAD"

HONEYGO BLVD.  
WAIT: "WAIT TO CROSS HONEYGO AT BELAIR, CROSSWALK ANGLE RIGHT"  
WALK: "RAPID TICKS" AND "WALK SIGN ON TO CROSS HONEYGO BLVD."

## IV. CONTROLLER INFORMATION:

A NEMA CONTROLLER WITH ALL NECESSARY EQUIPMENT SHALL OPERATE IN A SIX PHASE MODE HOUSED IN A BASE-MOUNTED CABINET SHALL BE INSTALLED AT THE INTERSECTION.

THE CONTRACTOR SHALL PURCHASE AND DELIVER THE "APS" 2-WIRE CENTRAL CONTROL UNIT FOR THE CONTROLLER TO THE SHA SIGNAL SHOP. CONTRACTOR SHALL CONTACT MR. EDWARD RODENHIZER, CHIEF SIGNAL SHOP AT 410-787-7652, THREE DAYS PRIOR TO DELIVERY.

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING MR. ROBERT SYNDER AT 410-787-7530 TO ARRANGE FOR THE PHONE DROP. THE CONTRACTOR SHALL PROVIDE THREE DAYS ADVANCE NOTICE AND SUPPLY THE NEAREST ADDRESS TO THE INTERSECTION.

## EQUIPMENT LIST 'A'

## A: EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
9016	2 EA	4-CHANNEL DETECTOR AMPLIFIER
9042	1 EA	NEMA CONTROLLER ASC II WITH TELEMETRY, EQUIPMENT AND HARDWARE.
9044	1 EA	SIZE '6' BASE MOUNTED CONTROLLER CABINET
9087	1 EA	VIDEO DETECTOR INTERFACE UNIT (5-8 CAMERAS)
9571	150 SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN
1 EA		D-3(1) DUAL FACED (VAR x 16") "ARROW, Gunview RD/ Gunview RD, ARROW"
1 EA		D-3(1) DUAL FACED (VAR x 16") "Honeygo BLVD, ARROW/ ARROW, Honeygo BLVD"
2 EA		D-3(1) DUAL FACED (VAR x 16") "Belair RD"
5 EA		R3-5L "LEFT ARROW, ONLY" (30"x36")
1 EA		R3-6L "LEFT/THROUGH ARROW" (30"x36")
1 EA		R3-5R(2a) "RIGHT ARROW, ONLY, NO TURN, ON RED, THIS LANE" (30"x54")
1 EA		R3-5R(2) "RIGHT ARROW, TURN ON, RED OK, THIS LANE, ONLY" (30"x54")
SHIELD ASSEMBLY SIGNS		
1 EA		"NORTH, US 1, LEFT ARROW" (24"x51")
1 EA		"SOUTH, US 1, LEFT ARROW" (24"x 51")
1 EA		"SOUTH, US 1, RIGHT ARROW" (36"x75")
1 EA		"NORTH, US 1, RIGHT ARROW" (36"x75")

## EQUIPMENT LIST 'B'

## B: EQUIPMENT TO BE FURNISHED AND INSTALL BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1003	3 EA	MAINTENANCE OF TRAFFIC
2002	6 CY	TEST PIT EXCAVATION
5001	7 EA	HEAT APPLIED WHITE PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKING ARROW
5004	550 LF	12" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5005	200 LF	24" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5006	50 LF	5" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5007	550 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
8001	1 EA	2-WIRE CENTRAL CONTROL UNIT
8003	6 EA	8" LED SIGNAL HEAD SECTION
8006	2 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
8007	4 EA	AUDIBLE/ TACTILE PEDESTRIAN PUSHBUTTON STATIONS & SIGNS
8008	3 EA	BREAKAWAY PEDESTAL POLE - ANY SIZE (10')
8013	4 EA	LED 16" COUNTDOWN PEDESTRIAN SIGNAL HEAD
8016	2 EA	MAST ARM POLE & 60' MAST ARM ANY "T" DIMENSION
8017	1 EA	MAST ARM POLE & 70' MAST ARM ANY "T" DIMENSION
8018	1 EA	MAST ARM POLE & 50' MAST ARM ANY "T" DIMENSION
8020	4 EA	NONINVASIVE DETECTOR WITH LEAD-IN CABLE UP TO 1,000'
8021	1 EA	REMOVE AND DISPOSE MATERIAL & EQUIPMENT PER ASSIGNMENT
8025	5 EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500'
8034	470 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - SLOTTED
8035	1,189 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8038	150 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8040	800 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042	1 EA	METERED SERVICE PEDESTAL EMBEDDED
8044	40' LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/ THWN
8046	12 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050	45 EA	12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8054	850 LF	ELECTRICAL CABLE - 2-CONDUCTOR (NO. 14 AWG)
8056	2,375 LF	ELECTRICAL CABLE - 5-CONDUCTOR (NO. 14 AWG)
8057	1,020 LF	ELECTRICAL CABLE - 7-CONDUCTOR (NO. 14 AWG)
8058	600 LF	ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 AWG) T/C
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

## EQUIPMENT LIST 'C'

THE SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET AT THE INTERSECTION OF US 1 AND FORGE ROAD. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

## PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MS. ERIN KUHN  
ASSISTANT DISTRICT ENGINEER-  
TRAFFIC  
PHONE: 410-321-2781/2885

MR. DON SCHAEFER  
ASSISTANT DISTRICT ENGINEER-  
CONSTRUCTION  
PHONE: 410-321-2821

MR. ANDRE FUTRELL  
ASSISTANT DISTRICT ENGINEER-  
MAINTENANCE  
PHONE: 410-321-2761

MR. MICHAEL PASQUARIELLO  
DISTRICT UTILITY ENGINEER  
PHONE: 410-321-2841

THE CONTACT PERSONS FOR OFFICE OF TRAFFIC AND SAFETY:

MR. ED RODENHIZER  
CHIEF, SIGNAL OPERATION SECTION  
PHONE: 410-787-7652

MS. DARLENE EIDE  
SIGNAL WAREHOUSE  
PHONE: 410-787-7668

MR. DENNIS DODA  
TEAM LEADER, TRAFFIC  
ENGINEERING DESIGN DIVISION  
PHONE: 410-787-5858

MR. GREG CARSKI  
CHIEF, DESIGN SECTION  
BALTIMORE COUNTY TRAFFIC ENGINEERING  
PHONE: 410-887-3554

## PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16,17	18,19
Phase 1 & 5	◀G-	◀G-	R	R	◀G-	◀G-	◀G-	R	R	R	R	R	R	R	R	DW	DW
MAY CHANGE TO PHASES 1&6 OR 2&5 OR 2&6																	
Phase 1 & 6	◀G-	◀G-	G	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW
1 Change	◀Y-	◀Y-	G	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW
Phase 2 & 5	R	R	R	R	◀G-	◀G-	◀G-	G	G	R	R	R	R	R	R	DW	DW
5 Change	R	R	R	R	◀Y-	◀Y-	◀Y-	G	G	R	R	R	R	R	R	DW	DW
Phase 2 & 6	R	R	G	G	R	R	R	G	G	R	R	R	R	R	R	WK	DW
Countdown Ped. Clear	R	R	G	Y	R	R	R	G	G	R	R	R	R	R	R	FL/DW	DW
2 & 6 Change	R	R	Y	Y	R	R	R	Y	Y	R	R	R	R	R	R	DW	DW
Phase 3	R	R	R	R	R	R	R	R	R	◀G-	◀G-	G	G	R	R	DW	DW
3 Change	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	R	R	DW	DW
Phase 4	R	R	R	R	R	R	R	R	R	R	R	◀G-	◀G-	G	G	DW	DW
4 Change	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW
Alt. Phase 4	R	R	R	R	R	R	R	R	R	R	R	◀G-	◀G-	G	G	DW	WK
Countdown Ped. Clear	R	R	R	R	R	R	R	R	R	R	R	◀G-	◀G-	G	G	DW	FL/DW
Alt. 4 Change	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW
Flashing Operation	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

## WIRING DIAGRAM

